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PHARMACEUTICAL STUDY OF *KOZHI KUZHAMBU*

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ABSTRACT

The preference for the consumption of chicken meat can be seen as a global phenomenon, with customers in India often favouring chicken meat over other types of meat. The versatility of chicken meat, its low cost compared to other meats, and religious acceptance of chicken meat all contribute to its rising consumption. According to Ayurveda, chicken can be used not only as food but also as medicine. A remarkable example is a preparation *Kozhi Kuzhambu*. This formulation is referenced in the classical literature *Sahasrayoga* under *Leha Prakarana*. *Kozhi Kuzhambu* can be used to treat all types of *Udara Vikaras*, including *Gulma*, *Udara Shula*, *Vriddhi*, and *Pleeha Roga*. **Aim:** An attempt has been made to do the pharmaceutical study of *Kozhi Kuzhambu*. **Method:** *Kozhi Kuzhambu* was prepared as per the classical method and evaluated for its organoleptic characteristics. **Results:** The final product of *Kozhi Kuzhambu* was having the desired consistency and quality. **Discussion:** The pharmaceutical observations while carrying out the practical were emphasized. **Conclusion:** The pharmaceutical study of *Kozhi Kuzhambu* was successful, and the final product's quality was as anticipated.

KEYWORDS: *Kozhi Kuzhambu*, chicken meat, *Udara Vikaras*, *Vriddhi*, *Pleeha Roga*.

INTRODUCTION

The *Kukkuta* (Chicken) is used in Ayurveda for both its nutritional and medicinal benefits. *Vasa* or muscular fat of *Kukkutas* are considered to be superior among the flesh of *Vikshira* birds. According to *Charaka Sutrasthana Kukkuta Mamsa* is the *Agrya Dravya* in *Balya*.[1]

Sahasrayoga Leha Prakarana refers to a special formulation known as *Kozhi Kuzhambu*.[2] *Kozhi* in this context refers to chicken, and *Kuzhambu* here refers to *Leha Paka*, making the phrase *Kozhi Kuzhambu* in Malayalam."*Kodi Kulumbu*" or "*Kukkuta Rasyanam*" are alternative names for this preparation. The chicken to be utilised for *Leha* is described in the *Saharayoga* as follows. A black hen that is mature enough to lay eggs is ideal for this preparation. For this pharmaceutical trial, broiler chicken was utilised because black hens were not readily accessible. While cleaning, it is also advised to remove the skin and giblets, which include the heart, liver, kidney, and other internal organs.

AIM AND OBJECTIVES

Aim: The study was aimed to perform the practical preparation of *Kozhi Kuzhambu*.

Objectives: The present study was carried out with the following objectives.

1. To prepare the *Kozhi Kuzhambu* according to classical text.
2. To observe the organoleptic characters of *Kozhi Kuzhambu*.

MATERIALS AND METHODS

Materials

All the ingredients viz, chicken, coconut was procured from the market and authenticated by the experts of Rasashastra and Bhaishajya Kalpana department, Alva's Ayurveda Medical College, Moodubidire, Dakshina Kannada, Karnataka. All the data were found strictly as per guidelines.

The Equipment used for the preparation are *Tula Yantra*, *Khalwa Yantra*, vessels, gas stove, spoon, mixer grinder, cloth and measuring jar.

Method

The method followed for the preparation of *Kozhi Kuzhambu* is from *Sahasrayoga*. The preparation was carried out in the laboratory of department Rasashastra and Bhaishajya Kalpana, Alva's Ayurveda Medical College, Moodubidire, Dakshina Kannada, Karnataka.

Pharmaceutical Processing

In the present study, the sample of *Kozhi Kuzhambu* was prepared as per the classical method mentioned in *Sahasrayoga*.

Preparation of *Kozhi Kuzhambu*

Table no. 1: Ingredients of *Kozhi Kuzhambu* and their quantities.

Sl no	Ingredients	Scientific Name / Botanical Name	Parts	Quantity taken
1	*Kukkuta*	*Gallus gallus domesticus*[3]	1 full Chicken	500 g
2	*Saindhava*	Rock salt	2 *Pala*	12 g
3	Coconut milk	*Cocos nucifera* L.	8 coconut fruits	2 coconut fruits
4	*Guda*	*Saccharum officinarum* L.	8 *Pala*	100 g
5	*Hingu*	*Ferula narthex* Boiss.	1 *Pala*	6 g
6	*Chavya*	*Piper trioicum* Roxb.	1 *Pala*	6 g
7	*Pippali*	*Piper longum* L.	1 *Pala*	6 g
8	*Maricha*	*Piper nigrum* L.	1 *Pala*	6 g
9	*Shunti*	*Zingiber officinale* Roscoe.	1 *Pala*	6 g
10	*Balamoola*	*Sida cordifolia* L.	1 *Pala*	6 g
11	*Lashuna*	*Allium sativum* L.	1 *Pala*	6 g
12	*Jeeraka*	*Cuminum cyminum* L.	1 *Pala*	6 g
13	*Tila Taila*	*Sesamum indicum* L.	2 *Pala*	15 ml
14	*Ghrita*	-	2 *Pala*	15 ml
15	*Madhu*	-	8 *Pala*	60 ml
16	*Jala*	-	Sufficient	100ml

Table no. 2: Ingredients of *Kozhi Kuzhambu* and its *Rasapanchaka*.

Sl no	Ingredients	*Rasa*	*Guna*	*Virya*	*Vipaka*	*Doshaghnata*	*Karma*
1	*Kukkuta*	*Madhura*	*Guru*	*Ushna*	*Madhura*	*Vatahara*	*Bramhana, Rasayana, Balya*
2	*Saindhava*	*Lavana, Madhura*	*Laghu, Snigdha*	*Sheeta*	*Madhura*	*Tridoshahara*	*Rochana, Deepana, Pachana*
3	Coconut milk	*Madhura*	*Guru, Snigdha*	*Sheeta*	*Madhura*	*Tridoshahara*	*Trishnahara*
4	*Guda*	*Madhura*	*Snigdha*	*Na-atisheeta*	*Madhura*	*Vatahara*	*Rakthashodhaka, Balya*
5	*Hingu*	*Katu*	*Laghu, Snigdha*	*Ushna*	*Katu*	*Vatakaphahara*	*Vatanulomana, Balya*
6	*Chavya*	*Katu*	*Laghu, Rooksha*	*Ushna*	*Katu*	*Kaphavata Shamaka*	*Deepana, Pachana*
7	*Pippali*	*Madhura, Katu, Tikta*	*Laghu, Snigdha*	*Anusha Sheeta*	*Madhura*	*Kaphavatahara*	*Deepana, Hrudya, Ruchya*
8	*Maricha*	*Katu, Tikta*	*Laghu, Rooksha*	*Ushna*	*Katu*	*Kaphapittahara*	*Dipana, Ruchya*
9	*Shunti*	*Katu*	*Laghu, Snigdha*	*Ushna*	*Madhura*	*Kaphavatahara*	*Vatanulomana, Dipana*
10	*Balamoola*	*Madhura*	*Laghu, Snigdha, Picchila*	*Sheeta*	*Madhura*	*Vatapradhana, Tridoshahara*	*Vrushya, Balya*
11	*Lasuna*	*Amla Varjita Pancha*	*Tikshna*	*Ushna*	*Katu*	*Kaphavatahara*	*Shophahara, Vedanasthapana*

		Rasa					
12	*Jeeraka*	*Katu*	*Laghu, Rooksha*	*Ushna*	*Katu*	*Tridoshahara*	*Dipana*
13	*Ghrita*	*Madhura*	*Snigdha*	*Sheeta*	*Madhura*	*Vatapittahara*	*Dipana*
14	*Tila Taila*	*Madhura, Tikta*	*Guru, Sookshma*	*Ushna*	*Madhura*	*Vatakaphahara*	*Balya*
15	*Madhu*	*Madhura Kashaya*	*Laghu, Rooksha, Vishada*	*Ushna*	*Madhura*	*Kaphapittahara*	*Dipana, Hrudya*

All the ingredients were taken and measured as shown in table 1. The chicken was initially cooked in a vessel with *Saindhava Jala*. After cooking, the chicken was mashed, and the bones were discarded. Then, in a wide mouthed vessel, coconut milk was taken along with *Guda*, heated and stirred well to dissolve it entirely. To this, the mashed boneless chicken was added and stirred thoroughly. When the preparation has thickened to the consistency of *Leha Paka*, the other powdered *Prakshepaka Dravyas* were added and thoroughly mixed. Finally, *Tila Taila* and *Ghrita* were added and well blended before the fire was turned off. Once cooled, *Madhu* was added and thoroughly mixed before being stored.

OBSERVATIONS AND RESULT

Final Product

Total quantity taken – 950 g

Expected final quantity – 738 g

Leha obtained – 538 g

Loss/ Gain

Loss of 200 g

Organoleptic Characters

Organoleptic characters like taste, colour, odour, touch and texture were scientifically studied as follows

Colour - Dark brown colour

Touch - Rough

Odour - Pleasant smell

Taste - Sweet taste predominantly, slightly pungent taste also appreciable

Texture - Thick

INDICATION

This formulation is specifically intended for all types of *Udaramaya*, and it is beneficial for conditions such as *Gulma Shoola*, *Udara Shoola*, *Vriddhi Roga*, and *Pleeha Roga*.

DOSE AND VEHICLE

6-12 g twice a day along with warm water or warm milk.

Photographs showing the preparation of *Kozhi Kuzhambu* are shown below

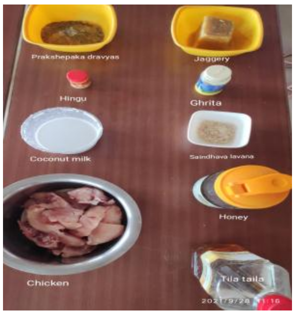

Fig. 1 Ingredients

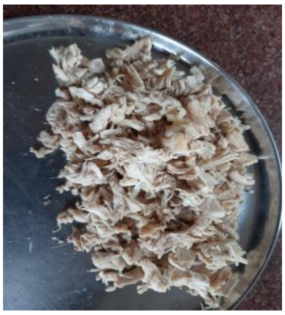

Fig.2 Cooked and mashed chicken

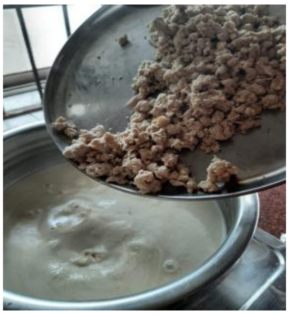

Fig. 3 Chicken added to coconut milk with *Guda*

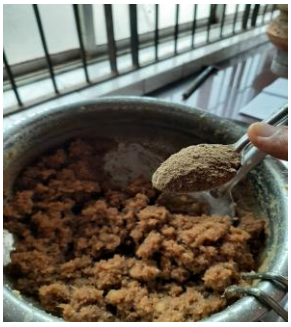

Fig. 4 Adding *Prakshepaka Dravya*

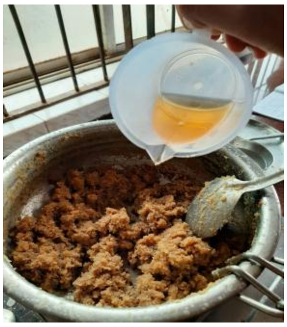

Fig. 5 Adding *Taila*

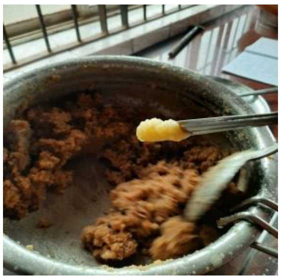

Fig. 6 Adding *Ghrita*

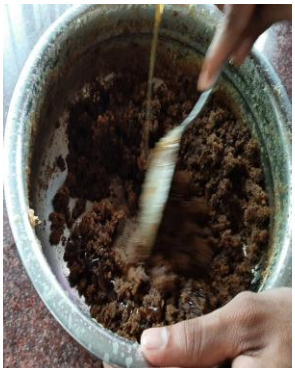

Fig. 7 Adding *Madhu* after cooling

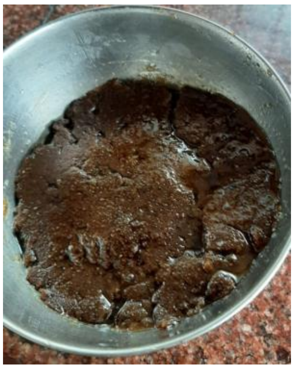

Fig. 8 Final product *Kozhi Kuzhambu*

DISCUSSION

The chicken meat was purchased from a local market and was devoid of skin and other internal organs. It was brought to the lab and soaked in water with salt and turmeric for half an hour. It aided in the removal of blood clots and other contaminants from the meat. To completely remove the blood clot, the meat was rinsed three times in water. The coconut fruit was grated to obtain the coconut milk, and after adding a small amount of water, it was blended in a mixer grinder to produce the milk. Then it was squeezed using a clean cloth. Since raw meat contains more water content, a minimal amount of water was added while the chicken was cooking. Properly cooked chicken and crushing assisted in separating the meat from adhered bones. Because the *Dravadravya* used here is coconut milk, it was readily boiling and evaporating, so proceed with caution. Once the chicken is mixed with the coconut milk, it was readily achieving the *Leha Paka*, thus stirring should be handled with attention or else it will burn. To prevent burning the *Leha* while performing the *Paka*, use medium heat. There were nine *Prakshepaka Dravyas* in total, and they were all combined after being individually pounded in the *Khalwa Yantra*. To prevent the *Paka Lakshanas* from advancing to the subsequent stage, while adding the *Prakshepaka Dravyas* the flame was kept mild. The key principle was to add the *Ghrita* and *Taila* toward the end, while the preparation was still hot. *Madhu* was used less than the classical ratio because it was not absorbing and oozing out of the *Leha*. The reason might be that the already existing *Ghrita* and *Taila* may be inhibit further absorption.

In the *Rasapanchaka*, the majority of the drugs are found to have the *Madhura Rasa, Snigdha Guna*, *Ushna Virya*, *Madhura Vipaka*, *Deepana Pachana*, *Brahmana,* and *Rasayana Karma*. Therefore, the *Vata Dosha* will get subsided by all of these qualities, which may contribute to the treatment of the diseases like *Gulma Shoola*, *Udara Shoola*, *Vriddhi Roga*, and *Pleeha Roga*. To acquire the most therapeutic benefit from the medicine, a suitable dosage form must be chosen; in this case, chicken serves as the main medicine. Palatability is critical when providing medication to a patient, especially when it is a *Lehya* that will be licked and ingested. As a result, converting meat into *Lehya* is the finest pharmaceutical approach for maximising therapeutic effect and palatability.

CONCLUSION

The pharmaceutical study of *Kozhi Kuzhambu* was successful, and the final product's quality was as anticipated based on organoleptic characteristics. In the future, an analytical investigation and a clinical study to evaluate the effectiveness of the same formulation will be accomplished.

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